

CLAIMS

1. A connector assembly for detachably connecting a lead to an implantable medical device, comprising:
 - a first deflectable connector clip including a first arm, a second arm, and a top portion extending between the first arm and the second arm; and
 - a housing having a first member and a second member, the first member formed to be fixedly engaged with the second member to retain the first connector clip within the housing, at least one of the first member and the second member including a deflection portion deflecting the connector clip from a first position corresponding to a first distance between the first arm and the second arm, to a second position corresponding to a second distance between the first arm and the second arm.
2. The connector assembly of claim 1, wherein the housing further includes one or more support ridge that is positioned adjacent to the top portion of the connector clip.
3. The connector assembly of claim 1, wherein the housing and the connector clip are formed of an electrically conductive metal.
4. The connector assembly of claim 3, wherein the electrically conductive metal is stainless steel.
5. The connector assembly of claim 1, wherein the first member and the second member form an aperture to receive the lead, and the first arm and the second arm are engage against the lead as the lead is advanced through the aperture to further deflect the first arm and the second arm from the second position to a third position.

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6. The connector assembly of claim 5, wherein the deflection portion extends between a first end and a second end, and the first arm and the second arm are engaged against the first end and the second end, respectively, when the connector clip is in the second position.

7. The connector assembly of claim 6, wherein the first arm and the second arm extend a distance outward from the first end and the second end, respectively, when the connector clip is in the third position.

8. The connector assembly of claim 1, further comprising a second deflectable connector clip, wherein the other of the first member and the second member includes a second deflection portion deflecting the second connector clip from the first position to the second position.

9. The connector assembly of claim 8, wherein the first connector clip is positioned generally perpendicular to the second connector clip.

10. The connector assembly of claim 8, wherein the first arm and the second arm of the first connector clip are engaged against the first deflection portion and the first arm and the second arm of the second connector clip are engaged against the second deflection portion when the first connector clip and the second connector clip are in the second position.

11. The connector assembly of claim 8, wherein the first member and the second member form an aperture to receive the lead, and the first arm and the second arm of the first connector clip and the first arm and the second arm of the second connector clip are engaged against the lead as the lead is advanced through the aperture to further deflect the first arm and the second arm of the first connector clip and the first arm and the second arm of the second connector clip from the second position to a third position.

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12. The connector assembly of claim 10, wherein the first arm and the second arm of the first connector clip are positioned outward from the first deflection portion and the first arm and the second arm of the second connector clip are positioned outward from the second deflection portion when the first connector clip and the second connector clip are in the third position.

13. The connector assembly of claim 2, wherein one of the deflection portion and the support member comprise a first flange and a second flange, the first flange positioned a distance from the second flange.

14. The connector assembly of claim 1, ends of the first arm and the second arm include tapered portions to provide clearance between the ends and the housing.

15. An implantable medical device capable of being detachably connected to a lead, comprising:

a first deflectable connector clip including a first arm, a second arm, and a top portion extending between the first arm and the second arm; and

a housing having a first member and a second member, the first member formed to be fixedly engaged with the second member to retain the first connector clip within the housing, at least one of the first member and the second member including a deflection portion deflecting the connector clip from a first position corresponding to a first distance between the first arm and the second arm, to a second position corresponding to a second distance between the first arm and the second arm.

16. The device of claim 15, wherein the housing further includes one or more support ridge that is positioned adjacent to the top portion of the connector clip.

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17. The device of claim 15, wherein the housing and the connector clip are formed of an electrically conductive metal.

18. The device of claim 17, wherein the electrically conductive metal is stainless steel.

19. The device of claim 15, wherein the first member and the second member form an aperture to receive the lead, and the first arm and the second arm are engaged against the lead as the lead is advanced through the aperture to further deflect the first arm and the second arm from the second position to a third position.

20. The device of claim 19, wherein the deflection portion extends between a first end and a second end, and the first arm and the second arm are engaged against the first end and the second end, respectively, when the connector clip is in the second position.

21. The device of claim 20, wherein the first arm and the second arm extend a distance outward from the first end and the second end, respectively, when the connector clip is in the third position.

22. The device of claim 15, further comprising a second deflectable connector clip, wherein the other of the first member and the second member includes a second deflection portion deflecting the second connector clip from the first position to the second position.

23. The device of claim 22, wherein the first connector clip is positioned generally perpendicular to the second connector clip.

24. The device of claim 22, wherein the first arm and the second arm of the first connector clip are engaged against the first deflection portion and the

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first arm and the second arm of the second connector clip are engaged against the second deflection portion when the first connector clip and the second connector clip are in the second position.

25. The device of claim 22, wherein the first member and the second member form an aperture to receive the lead, and the first arm and the second arm of the first connector clip and the first arm and the second arm of the second connector clip are engaged against the lead as the lead is advanced through the aperture to further deflect the first arm and the second arm of the first connector clip and the first arm and the second arm of the second connector clip from the second position to a third position.

26. The device of claim 24, wherein the first arm and the second arm of the first connector clip are positioned outward from the first deflection portion and the first arm and the second arm of the second connector clip are positioned outward from the second deflection portion when the first connector clip and the second connector clip are in the third position.

27. The device of claim 16, wherein one of the deflection portion and the support member comprise a first flange and a second flange, the first flange positioned a distance from the second flange.

28. The device of claim 15, ends of the first arm and the second arm include tapered portions to provide clearance between the ends and the housing.